

REMARKS/ARGUMENTS

1. Summary of the Office Action

Claims 1-2, 4, 6-11, 13-14, 16, 18, 20-22 stand rejected under § 103(a) as allegedly being anticipated by U.S. Patent No. 4,682,284 (hereinafter “Schrofer”) in view of U.S. Patent No. 5,954,815 (hereinafter “Joshi”), in further view of U.S. Patent No. 4,841,476 (hereinafter “Mitchell”).

2. Response to § 103 Rejections

Applicants respectfully traverse this rejection for the reasons set out below, and ask the Examiner for reconsideration.

To establish a **prima facie** case of **obviousness**, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

THE PRIOR ART REFERENCES DO NOT TEACH OR SUGGEST ALL CLAIM LIMITATIONS, WHEN CONSIDERED SINGULARLY OR IN COMBINATION.

Claim 1 reads as follows:

1. A method including:
in a queue, writing a first microinstruction of a plurality of microinstructions to a first location indicated by a write pointer, the plurality of microinstructions being written to the queue

as a set of a predetermined number of microinstructions, and the first microinstruction of **the plurality of microinstructions being indicated as invalid on account of being outside a trace of microinstructions, the trace of microinstructions corresponding to a macroinstruction and comprising a sequence of microinstructions**;

making a qualitative determination whether or not to retain the first microinstruction within the queue based on the indicated invalidity of the first microinstruction;

if the qualitative determination is to retain the first microinstructions, then advancing the write pointer to indicate a second location within the queue into which to write a second microinstruction; and

if the qualitative determination is not to retain the first microinstruction, then maintaining the write pointer to indicate the first location within the queue into which to write the second microinstruction, so that the first microinstruction is overwritten by the second microinstruction.

The Office Action admits that the combination of Schrofer and Joshi does not teach a first instruction comprising a first microinstruction. (Office Action, p. 4.) The Office Action submits that Joshi discloses “the first instruction of the plurality of instructions being indicated as invalid on account of being outside a trace of instructions”. (Office Action, p. 3.) However, **“the trace of microinstructions corresponding to a macroinstruction and comprising a sequence of microinstructions”**, as required by claim 1, has no meaning in the context of Joshi, because Joshi fails to disclose a microinstruction.

The Office Action relies on Mitchell to disclose a microinstruction. Mitchell discloses the following:

“In FIG. 2, the portion 10a of the IPU 10 which receives the source instruction stream on 21 includes a data cache 24 which terminates the source stream, and an instruction cache 25 which contains microinstructions.”

Mitchell, 4: 35-39.

Although Mitchell discloses an instruction cache, which contains microinstructions (Mitchell, 4: 35-39), Mitchell fails to disclose or even suggest “**the first microinstruction of the plurality of microinstructions being indicated as invalid on account of being outside a trace of microinstructions, the trace of microinstructions corresponding to a macroinstruction and comprising a sequence of microinstructions**”, as required by claim 1.

Thus, the Applicants submit that a combination of Mitchell and Joshi does not yield “the first microinstruction of the plurality of microinstructions being indicated as invalid on account of being outside a trace of microinstructions”, as required by claim 1. Thus, claim 1 and its dependent claims 2, 4, and 6-12 are patentable over Schrofer, whether considered separately or in combination with Joshi and Mitchell, and should be allowed.

Claims 13 and 21 include features similar to the features of claim 1. Claims 13 and 21, as well as their respective dependent claims, are patentable over Schrofer, whether considered separately or in combination with Joshi and Mitchell, and therefore should be allowed for at least the reasons articulated with respect to claim 1.

In light of the above, Applicants respectfully submit that the rejections under 35 U.S.C. § 103 have been overcome, and withdrawal of these rejections is therefore respectfully requested.

3. **Conclusion**


Having tendered the above remarks, Applicants respectfully submit that all rejections have been addressed and that the claims are now in a condition for allowance, which is earnestly solicited.

If there are any additional charges, please charge Deposit Account No. 02-2666. If a telephone interview would in any way expedite the prosecution of the present application, the Examiner is invited to contact Elena B. Dreszer at (408) 947-8200 ext. 209.

Respectfully submitted,

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